8.2 Biological Resources

This section describes biological resources near the Walnut Creek Energy Park (WCEP), and the potential effects of the project on them. Section 8.2.1 discusses the affected environment, including a regional overview of biological resources, vegetation, sensitive plant communities, wetlands, wildlife, economically important wildlife species, special environmental areas, and special-status species. Section 8.2.1 also discusses methods and results of biological field surveys at the WCEP. Section 8.2.2 discusses the effects that construction and subsequent operation of the new facilities may have on special-status plant and animal species and sensitive habitats. Section 8.2.3 evaluates any potential cumulative impacts to biological resources in the project vicinity, and Section 8.2.4 addresses proposed mitigation measures that would avoid, minimize, or compensate for adverse impacts. Section 8.2.5 presents applicable laws, ordinances, regulations and standards (LORS). Section 8.2.6 presents agency contacts and Section 8.2.7 presents permit requirements and schedules. Section 8.2.8 contains references.

8.2.1 Environmental Setting

The following sections describe the biological conditions of the proposed WCEP site, beginning with a regional overview, the vegetation types and habitat present in the project area, a description of wildlife typical to the area, and a discussion of specific special-status species known to occur in the general region.

8.2.1.1 Regional Overview

The WCEP project site is an 11.48-acre parcel located on Bixby Drive in the City of Industry, California, Los Angeles County. The proposed project site is located within the City of Industry limits approximately 12 miles east of downtown Los Angeles. The project site is located within an existing industrial park. A portion of the site is currently occupied by a warehouse that is scheduled to be demolished. The entire site is paved. To the north of the parcel lies a Southern California Edison (SCE) transmission corridor within which a double row of transmission lines runs east to west. Portions of this corridor may be used for WCEP construction laydown. Adjacent and to the north of this transmission corridor is the concrete-lined channel of San Jose Creek and north of the creek is an intermodal rail-truck transfer yard.

To the east of the project parcel is Bixby Street, and beyond Bixby Street is an industrial area containing warehouses and light manufacturing facilities. Immediately south of the WCEP are the Union Pacific railroad tracks, which run east to west, and south of the railroad tracks are large warehouse buildings. To the southwest of the parcel are the SCE Walnut Substation and a transmission corridor leading to the substation. This corridor is occupied by an ornamental plant nursery.

Immediately west of the project parcel, but not included in the project area itself, is a small fenced area containing a low-lying drainage swale that supports ruderal vegetation, shrubs, and volunteer ornamental trees. Local stormwater drainage enters this area from the south by passing under the railroad through a culvert. Runoff then continues north, entering a culvert under the SCE transmission corridor into the San Jose Creek flood control channel.

The closest natural habitat areas to the WCEP include the Puente Hills open-space area approximately 4 miles to the south of the site. A regional park and county park are located in this area. Dense residential development lies between the site and the Puente Hills. The Angeles National Forest is located about 20 miles north of the project site. Industrial, commercial, and residential development occurs between the Angeles National Forest and the project site. Figure 8.2-1 shows regional biological resources.

Local area drainage runs through the channel to the west of WCEP into San Jose Creek. San Jose Creek runs in a concrete-lined flood control channel approximately 175 feet north of the WCEP. San Jose Creek drains into the San Gabriel River about 6 miles to the west of the project site.

8.2.1.2 Habitat and Vegetation Communities

The WCEP site is located entirely within industrial development and includes an existing paved warehouse pad and warehouse surrounded by a large asphalt parking lot. The entire site is paved. There are no remaining natural features that provide significant habitat for plant or wildlife species on within the site footprint.

Vegetation in the immediate project area is limited to non-native, ruderal species that have become established in the transmission and railroad corridors to the north and south of the site and in the drainage swale that is located immediately west of WCEP. Typical plant species in these corridors include Italian thistle (*Carduus pycnocephalus*), prickly lettuce (*Lactuca serriola*), California fan palm (*Washingtonia filifera*), castor bean (*Ricinus communis*), and eucalyptus (*Eucalyptus* sp.) A list of common plant species observed in the project area is found in Table 8.2-1. None of these species has regulatory status.

The vegetated drainage swale west of the site provides marginal forage and cover resources for a limited diversity of wildlife such as common passerines and rodents. The concrete-lined flood control channel of San Jose Creek is not vegetated and does not provide habitat. A list of animal species observed in the project area and the potential for their use of the project area is found in Table 8.2-2.

The associated WCEP linear features (electric transmission line, gas pipeline, water supply pipeline, and sewer pipeline) will be contained within the existing pavement and/or concrete sidewalks and are all within the 1-mile survey area. The construction laydown area will also be within existing paved areas of the site, but may also include the SCE transmission corridor to the north of the site.

8.2.1.3 Special-status Species

A list of federal and state special-status plant and wildlife species was compiled for the project area using the following sources: the CDFG California Natural Diversity Database (CNDDB)(CDFG, 2005); California Native Plant Society's (CNPS) Electronic Inventory (CNPS, 2001); a USFWS species list requested for Los Angeles County (USFWS, 2005); and a field reconnaissance survey. The reference information is based on known occurrences, historical records, or the presence of suitable habitat for any given life stage of a particular species. The known locations of special-status species identified in the CNDDB records for the associated Azusa, Baldwin Park, El Monte, Glendora, La Habra, Mount Wilson, San Dimas, Whittier, and Yorba Linda, 7.5-minute U.S. Geological Survey (USGS) quadrangles are shown in Figure 8.2-2. The special-status species reference search, the onsite field survey,

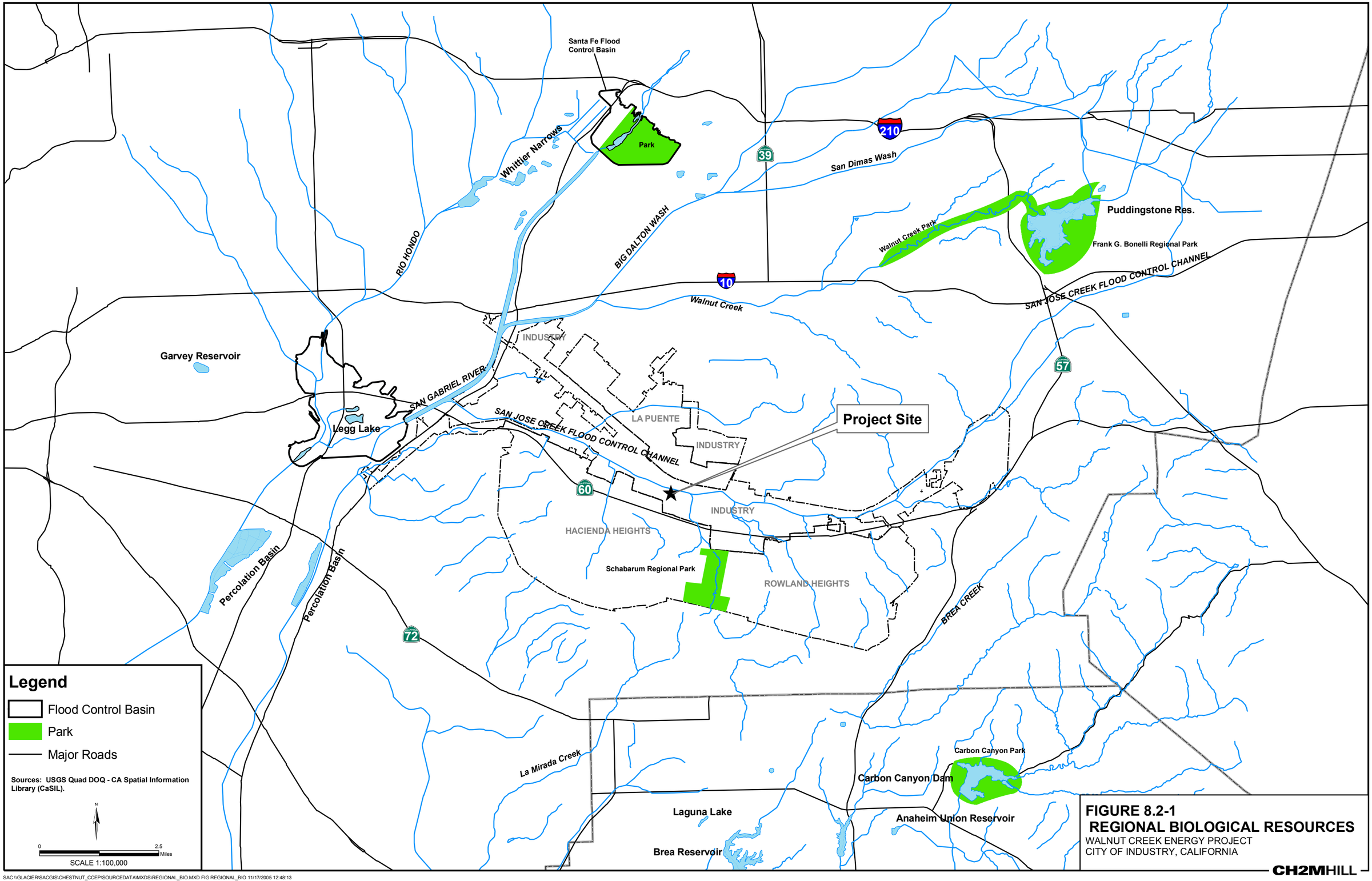

FIGURE 8.2-1
REGIONAL BIOLOGICAL RESOURCES
WALNUT CREEK ENERGY PROJECT
CITY OF INDUSTRY, CALIFORNIA

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Coast (San Diego) horned lizard

many-stemmed dudleya

Legend

- Project Location
- 1 Mile Buffer
- 2 Mile Buffer

Sources: USGS Quad DRG - CA Spatial Information Library (CaSIL), CA Dept. of Fish & Game, CA Natural Diversity Database (CNDDB), 2005.

N

0 2,000 Feet

SCALE 1:24,000

FIGURE 8.2-2
SPECIAL STATUS SPECIES RECORDED IN PROJECT AREA
WALNUT CREEK ENERGY PROJECT
CITY OF INDUSTRY, CALIFORNIA

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and habitat assessment resulted in the comprehensive special-status species list provided in Appendix 8.2A. The list includes species listed as threatened or endangered that have special requirements under the federal Endangered Species Act (ESA) and California Endangered Species Act (CESA) and other unlisted special-status species that could become listed in the future. The table includes the habitat types that could support these species as well as the potential for occurrence in the project area. Any special-status species whose habitat(s) and/or known distribution are within the project area were evaluated for potential impacts from WCEP construction and operation. Other special-status species that were included on the USFWS, CDFG and CNPS lists whose habitats or known distribution do not occur within the project area were included in Table 8.2A (Appendix 8.2A), but not evaluated further. Table 8.2-3 presents an abbreviated list of species that were evaluated for the WCEP.

TABLE 8.2-1
Common Plant Species Observed around the Proposed WCEP Site

Scientific Name	Common Name
Asteraceae	
Carduus pycnocephalus	Italian thistle
Lactuca serriola	Prickly lettuce
Picris echioides	Bristly ox-tongue
Silybum marianum	Milk thistle
Xanthium strumarium	Cocklebur
Arecaceae	
Washingtonia filifera	California fan palm
Boraginaceae	
Heliotropium curassavicum	Salt heliotrope
Brassicaceae	
Brassica nigra	Black mustard
Raphanus sativus	Radish
Euphorbiaceae	
Ricinus communis	Castorbean
Myrtaceae	
Eucalyptus sp.	Eucalyptus
Poaceae	
Avena barbata	Slender wild oat
Bromus diandrus	Ripgut brome
Sorghum halepense	Johnsongrass
Polygonaceae	
Polygonum arenastrum	Spreading knotweed
Solanaceae	
Datura stramonium	Jimsonweed
Zygophyllaceae	
Tribulus terrestris	Puncturevine

TABLE 8.2-2
Wildlife Species Observed During the Biological Reconnaissance Visit to the WCEP Project Area (September 2005)

Common Name	Scientific Name	Location	Comments
Birds			
Mourning dove	*Zenaida macroura*	Drainage corridor adjacent to west boundary of project site; Southern California Edison (SCE) transmission line corridor	May use general area for nesting and foraging year round
Killdeer	*Charadrius vociferus*	SCE transmission line corridor	Not expected in the project site; may use areas along the flood control channel for foraging
House finch	*Carpodacus mexicanus*	Drainage corridor adjacent to west boundary of project site; SCE transmission line corridor	May use general area for nesting and foraging year round
Red-tailed hawk	*Buteo jamaicensis*	SCE transmission line corridor	May use transmission line corridor for roosting and foraging; suitable nesting sites not available
Brewer's blackbird	*Euphagus cyanocephalus*	SCE transmission line corridor	May use general area for nesting and foraging year round
Anna's hummingbird	*Calypte anna*	SCE transmission line corridor	May use general area for nesting and foraging year round
American crow	*Corvus brachyrhynchos*	SCE transmission line corridor; adjacent industrial areas	May use transmission line corridor for roosting and foraging; suitable nesting sites not available
European starling	*Sturnus vulgaris*	SCE transmission line corridor; adjacent industrial areas	May use general area for nesting and foraging year round
Black phoebe	*Sayornis nigricans*	SCE transmission line corridor	Not expected in the project site; may use areas along the flood control channel for foraging
American kestrel	*Falco sparverius*	SCE transmission line corridor	May use general area for foraging
Rock dove	*Columba livia*	SCE transmission line corridor; adjacent industrial areas	May use general area for nesting and foraging year round
Mammals			
Domestic dog	*Canis familiaris*	SCE transmission line corridor; adjacent industrial areas	May scavenge around project site
California ground squirrel	*Spermophilus beecheyi*	Drainage corridor adjacent to west boundary of project site	May use general area for foraging year round, burrows are present along transmission line corridor

TABLE 8.2-3
Special-status Species Potentially Occurring in WCEP Project Area

Scientific Name	Common Name	Status[a]	Season[b]	Primary Habitat[c]	Potential Occurrence in Project Area	Comments
Birds						
Accipiter cooperii	Cooper's hawk	CSC	RES	Riparian, chaparral,	Low	May be transitory, no nests or birds observed on or adjacent to site.
Epidonax traillii extimus	Southwestern willow flycatcher	FE, CE	SUMR	Riparian woodlands.	None	State listing includes all subspecies. No willows on site or adjacent drainage.
Gymnogyps californianus	California condor	FE, CE	RES	Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites.	None	Forages up to 100 miles from roost/nest, although no forage habitat is available near the site.
Haliaeetus leucocephalus	Bald Eagle	FT, SE	RES	Nests in large, old-growth, or live trees with open branches. Nests and winters near ocean shores, lake margins, and rivers.	None	No forage or nesting habitat found near the site.
Polioptila californica californica	Coastal California gnatcatcher	FT	RES	Low, coastal sage scrub in arid washes, on mesas and slopes. Obligate, permanent resident of coastal sage scrub below 2500 feet in Southern California.	None	No habitat found near the site.
Icteria virens	Yellow-breasted chat	CSC	SUMR	Inhabits riparian thickets of willow & other brushy tangles near watercourses	None	No suitable habitat on or near the site.

TABLE 8.2-3
Special-status Species Potentially Occurring in WCEP Project Area

Scientific Name	Common Name	Status[a]	Season[b]	Primary Habitat[c]	Potential Occurrence in Project Area	Comments
Vireo bellii pusillus	Least Bell's vireo	FE, CE	SUMR	Nests along margins of bushes on twigs projecting into pathways in low riparian areas in the vicinity of water or in dry river bottoms.	None	No suitable habitat on or near the site.

[a] **Status**.

Federal Status

FE – Federally listed as endangered
FT – Federally listed as threatened

State Status

CE – State listed as endangered
CT – State listed as threatened

CNPS Status

1A – Plants presumed extinct in California
1B – Plants rare, threatened, or endangered in California, but more common elsewhere
2 – Plants rare, threatened, or endangered in California, but more common elsewhere
3 – Plants about which we need more information – a review list
4 – Plants of limited distribution – a watch list

[b] **Season**. Blooming period for plants. Season of use for animals. RES= Resident; SUMR= Summer; WNTR= Winter

[c] **Primary Habitat**. Most likely habitat association.

Sources: (Azusa, Baldwin Park, El Monte, Glendora, La Habra, Mt. Wilson, San Dimas, Whittier, and Yorba Linda Quads searched)
California Department of Fish and Game. Natural Diversity Database Program "Rarefind" (v3.0.5). July 1, 2005. California Natural Diversity Database. The Resources Agency, Sacramento; California Native Plant Society (CNPS). 2005. Inventory of Rare and Endangered Plants (online edition, v6-05a). California Native Plant Society. Sacramento, CA.

8.2.1.3.1 Special-status Plants

Information acquired from the CNDDB, CNPS, and other sources resulted in a list of 47 special-status plant species that could occur in Los Angeles County (Appendix 8.2A). Most of these species are associated with the natural habitats that were once prevalent in the Los Angeles area but have since been lost to extensive urban development. Vegetation in the project area is limited to invasive, ruderal species established in less frequented patches of disturbed ground. A few exotic, ornamental tree species are located outside the western boundary of the project site in the disturbed drainage pathway.

No natural habitat occurs within a one-mile radius of the WCEP project site and none of the 47 special-status plant species identified in the literature review are expected to occur within a one-mile radius of the project site. The closest suitable habitat may be found in the Puente Hills (4 miles from the project site) or in the Angeles National Forest (20 miles from the project site). No native species or suitable habitats were observed in the railroad right-of-way (ROW) or along the transmission line corridor during the reconnaissance survey. These ROWs are dominated by non-native grassland species that are routinely maintained by mowing and spraying to control vegetation growth. The presence of dense ruderal, invasive species within the drainage corridor along the western boundary typically preclude the establishment or growth of native species in this area.

8.2.1.3.2 Special-status Wildlife

Information acquired from the CNDDB, USFWS, and other sources resulted in a list of 50 special-status wildlife species whose occurrence has been previously recorded in Los Angeles County (Appendix 8.2A). The project site and immediate adjacent areas do not contain suitable habitats to attract significant numbers of wildlife.

Exhaust stacks at the site could present a collision potential for various bird species. These species may risk collision when migrating through the general area or when traveling between resource areas. Seven special-status bird species that could potentially pass through the site as transients were included in the abbreviated special-status species list in Table 8.2-3. Special-status birds in the region include raptors such as Cooper's hawk (*Accipiter cooperii*) and passerines such as least Bell's vireo (*Vireo bellii pusillus*) and yellow-breasted chat (*Icteria virens*).

8.2.1.4 Biological Surveys

A biological reconnaissance survey of the project area and general vicinity was performed by biologists from CH2M HILL on September 9, 2005. The surveyors' qualifications are provided in Appendix 8.2B. The field surveys were aided by aerial photographs (1:6,000 scale), which helped identify land uses and open habitat areas (Figure 8.2-3). The presence, or potential presence, of sensitive biological resources was determined from information gathered during field surveys conducted for the project, published and unpublished literature, and natural resource agency databases. The survey included the site and an area within a 1-mile radius from the site (see Figure 8.2-3). All project linear features are within the 1-mile radius of the site and were included in the surveys. Also included in the surveys was the SCE transmission corridor to the north of the plant site, between the plant site and the San Jose Creek flood control channel. Plant and wildlife species observed in the project vicinity during the surveys are included in Tables 8.2-1 and 8.2-2. Based on the project setting and the reconnaissance field survey, it was determined that additional species-specific focused surveys or botanical surveys would not be necessary within the

project impact area because no significant biological resources would be affected by construction or operation.

8.2.2 Environmental Consequences

Potential direct and indirect impacts to biological resources were evaluated to determine the permanent and temporary effects of the construction, operation, maintenance, and decommissioning of the WCEP project and supporting facilities. Results from the reconnaissance survey, habitat evaluations, and aerial photographs conclude an absence of significant biological resources in the WCEP project area. There are no property or project features that would support special-status plants or attract special-status wildlife. Potential minor and less-than-significant impacts are limited to possible avian collisions with exhaust stacks. A summary of potential project impacts is presented in Table 8.2-4.

TABLE 8.2-4
Summary of Permanent and Temporary WCEP Project Impacts on Biological Resources During Construction

Location	Project Work	Construction Zone Size	Habitat Type	Sensitive Biological Resources	Impacts to Biological Resources	
					Temporary	Permanent
Power plant site	Grading for footprint construction	11.5 acres	Paved	None	None	None
Construction laydown area	Use existing surface	Onsite: 2 acres	Paved	None	None	None
		SCE Transmission Corridor: 6.7 acres	Ruderal			
Natural gas pipeline	Open pipeline trench to local tie-in location	14” tie-in to onsite 30” high-pressure line	Paved	None	None	None
Potable water supply line	Open pipeline trench to local tie-in location	4” tie-in to 12” line in Bixby Drive	Paved	None	None	None
Process water supply line	Open pipeline trench to local tie-in location	2” tie-in to onsite 48” sewer trunk line	Paved	None	None	None
115-kV transmission lines	Install poles and string line	600-foot line to SCE Walnut Substation (primarily along existing SCE Right of Way), 230 kV, one (monopole/steel lattice) tower	Paved	None	None	None

8.2.2.1 Standards of Significance

Impacts on biological resources are considered significant if one or more of the following conditions could result from implementation of the proposed project:

- Substantial effect, reduction in numbers, restricted range, or loss of habitat for a population of a state or federally listed threatened or endangered species.

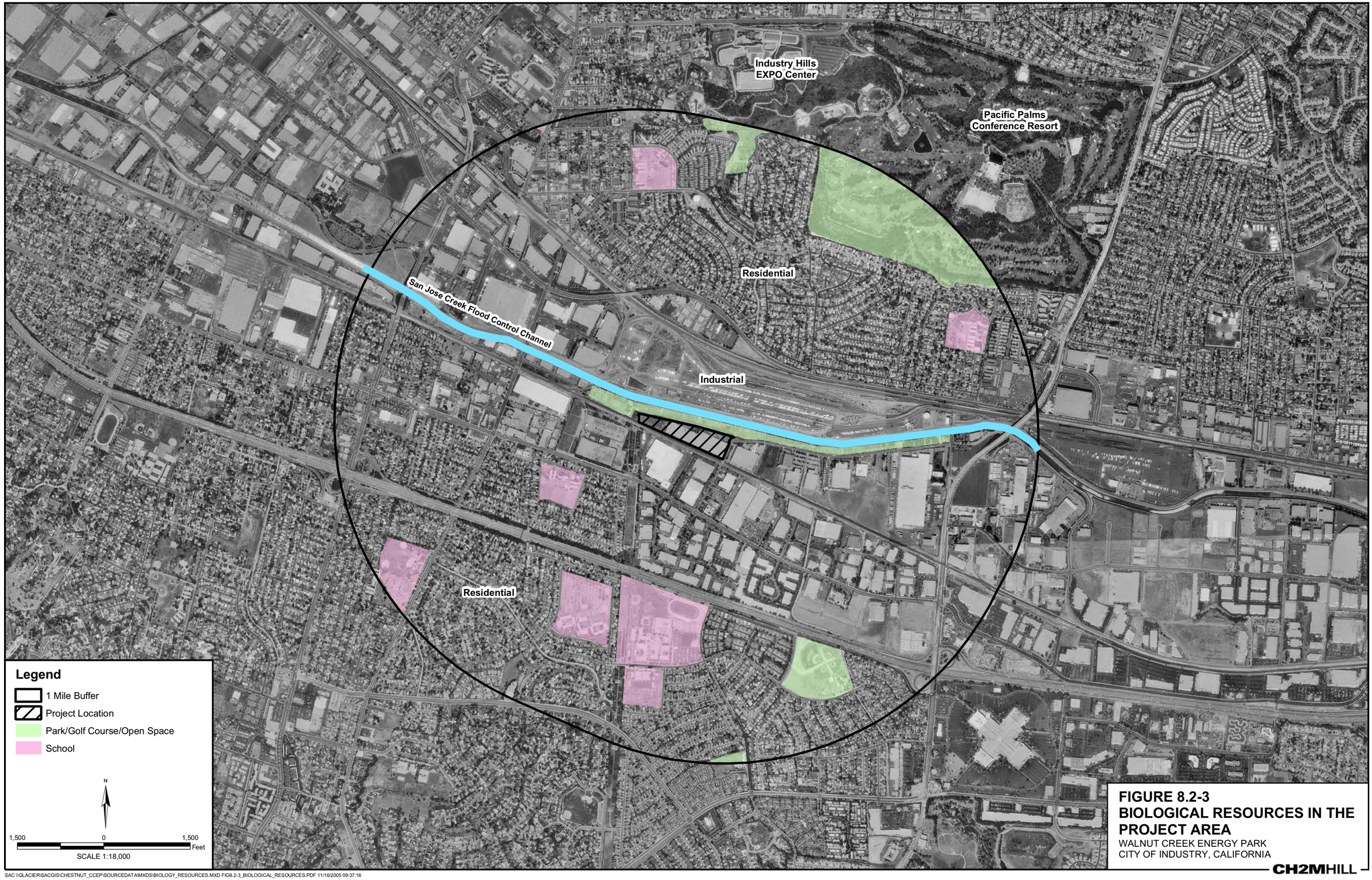

FIGURE 8.2-3
BIOLOGICAL RESOURCES IN THE PROJECT AREA
WALNUT CREEK ENERGY PARK
CITY OF INDUSTRY, CALIFORNIA

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- Substantial effect, reduction in numbers, restricted range, or loss of habitat for a population of special-status species, including fully protected, candidate proposed for listing, California species of concern (CSC), and certain CNPS list designations.
- Substantial interference with the movement of any resident or migratory fish or wildlife species.
- Substantial reduction of habitat for native fish, wildlife, or plants.
- Substantial disturbance of wetlands, marshes, riparian woodlands, and other wildlife habitat.
- Removal of trees designated as heritage or significant under County or local ordinances.
- Conflict with local habitat conservation plan or other approved local, regional, or state plan.

8.2.2.2 Potential Impacts of Construction and Operation

The WCEP plant site would permanently occupy approximately 11.5 acres of existing industrial development. This area is currently characterized by a paved surface with an existing industrial warehouse. No vegetation occurs on site. The project site has a history of industrial use and is surrounded by a variety of industrial uses. The site provides little or no habitat value for native plant and wildlife species. The construction laydown area will be approximately 2 acres, all confined within the 11.48-acre site, and may also incorporate the adjacent SCE transmission corridor, an area of about 6.7 acres.

8.2.2.2.1 Special-status Species

No special-status plant or wildlife species were observed on the proposed project site and vicinity during the 2005 reconnaissance survey for this project. No records of historical special-status species sightings were included in the CNDDB for this area. The site and laydown areas comprise an industrial warehouse, paved parking area, and SCE easement, and do not support likely habitat for any special-status plant or wildlife species. Seasonal botanical and wildlife surveys are not expected to have differing results and, therefore, are not proposed.

Because of the lack of biological resources, WCEP construction would not result in significant impacts to any special-status plant or wildlife species. However, construction of five 90-foot tall cooling stacks and the 600-foot long transmission line corridor tie-in could increase slightly the potential for avian collisions. Because there is no habitat that would draw migrating special-status birds (or resident birds) to the project site, and because very few special-status birds or resident birds are expected to pass through the site as transients, the number of avian collisions is expected to be very low, if they occur at all. The transmission line will be constructed using a "raptor-friendly" design, and lighting would be pointed downward to reduce attraction of birds to the stacks. Potential impacts to birds from the stacks and transmission line would be less-than-significant and no monitoring is proposed.

8.2.2.2.2 Wetlands and Waters of the U.S

No jurisdictional wetlands or waters of the U.S. are present on the project site. Project construction would not cause loss or fill of any wetlands.

No surface or groundwater would be used for operation of WCEP. Cooling water discharged from the plant cooling system and other plant wastewater will be sent directly to the City of Industry's sewer system. Likewise, stormwater runoff from the site will be sent to the Los Angeles County Sanitation District via the City of Industry's combined sewer system.

Water will be applied to the site and laydown area for dust control during construction. Erosion and sediment washed into surface waters (drainage west of site) would be potentially harmful to water quality downstream. As discussed further in Sections 8.11 (Agriculture and Soils) and 8.15 (Water Resources), the Applicant will prepare an erosion and sediment control plan that specifies best management practices (BMPs) to be implemented during all project activities to avoid sediment runoff and erosion that would cause water quality degradation.

8.2.2.2.3 Cooling Tower Drift

Cooling tower drift is the fine mist of water droplets that escape the cooling tower's mist eliminators and are emitted into the atmosphere. Cooling towers concentrate the particulates (total dissolved solids) during the cooling process and produce a salt mist. At high concentrations, salts can physically damage leaf cells, which affect the photosynthetic ability of plants. Other effects include blocking the stomata (leaf pores) so that normal gas exchange is impaired, as well as affecting leaf adsorption and solar radiation reflectance. These effects can reduce productivity in crops, trees, and sensitive special-status plant species in a deposition area.

Studies performed by Lerman and Darley (1975) concluded that particulate deposition rates of 365 grams per square meter per year (g/m^2/year) caused damage to fir trees, but rates of 274 g/m^2/year and 400 to 600 g/m^2/year did not cause damage to vegetation at other sites. Pahwa and Shipley (1979) exposed vegetation (corn, tobacco, and soybeans) to varying salt deposition rates to simulate drift from cooling towers that use saltwater (20,000 to 25,000 parts per million [ppm]) in the circulation water. Salt stress symptoms on the most sensitive crop plants (soybeans) were barely perceptible at a deposition rate of 2.98 g/m^2/year (Pawha and Shipley, 1979).

Assuming a particulate deposition rate of 2 centimeters per second and a maximum salt concentration of 0.10 micrograms per cubic meter ($\mu g/m^3$) (the maximum modeled annual average particulate matter concentrate from the cooling tower), the maximum expected deposition rate is 0.238 kilograms/hectare/year or 0.0238 g/m^2/year, which is significantly less than levels expected to cause barely perceptible effects to the most sensitive crop plants. Therefore, potential impacts to biological resources from cooling tower drift would be less than significant

8.2.2.2.4 Cooling Effluent and Discharge

Process water for the WCEP power plant operations will be supplied and discharged from the City of Industry's combined sewage system. This system is further discussed in Sections 7.0 (Water Supply) and 8.15 (Water Resources). Water will be discharged to the plant wastewater sump, and then to the City of Industry's combined sewer system. Because the WCEP project will draw process water from, and discharge wastewater into, the combined sewer system, there will be no mechanism to affect fish or other aquatic biota from securing or discharging water during operations. Therefore, there will be no significant impacts to biological resources from wastewater effluent.

8.2.2.2.5 Combustion Turbine Emissions

Air emissions from the five combustion turbine exhaust stacks include nitrogen oxides (NO_x), sulfur oxides (SO_x), and particulates (PM_{10}). Nitrogen oxide gases (NO, NO_2) convert to nitrate particulates in a form that is suitable for uptake by most plants. As stated previously, increased nitrate availability would have no impact on natural vegetation based on lack of presence in the project vicinity.

In addition, the level of nitrogen deposition from the WCEP on plant-available nitrogen would actually be less than the calculated amount because the deposition will be distributed in small amounts during the year and not all of the nitrogen added to the soil during each deposition event is available for plant use because of losses associated with soil processes. Therefore, there will be no significant impacts to biological resources from nitrogen deposition.

8.2.2.2.6 Noise and Lights from Plant Operations

The WCEP site is zoned industrial and is surrounded by several industrial facilities adjacent to the site. These facilities typically operate 24 hours per day, 7 days per week and have standard industrial lighting and noise emissions. Operation of the plant would produce some noise, as described in Section 8.7, Noise. Noise and construction activities would not likely adversely impact wildlife, due to existing noise levels and the lack of local wildlife attractants in the immediate vicinity.

Bright night lighting could disturb wildlife (e.g., nesting birds, foraging mammals, and flying insects). Night lighting is also suspected to attract migratory birds to some areas and, if the lights are on tall buildings or the combustion turbine exhaust stacks, collisions could occur. However, the exhaust stack height of 90 feet is lower in profile than some of the surrounding development, such as the 230-kV transmission towers in the SCE transmission easement to the north, west, and southwest. As described in Section 8.13, Visual Resources, any required stack and facility lighting will be pointed downwards, which will reduce impacts on wildlife and migrating birds to less than significant levels.

8.2.2.2.7 Potential for Collision and Electrocution Hazard to Birds

The project would include five 90-foot-high exhaust stacks that could potentially result in bird collisions. The new approximately 600-foot-long, 230-kV electrical transmission line introduces the potential for bird electrocutions and collisions with aboveground lines. Most collisions involve nocturnal migrants flying at night in inclement weather and low-visibility conditions, colliding with tall guyed television or radio transmission towers (California Energy Commission [CEC], 1995; Kerlinger, 2000 in Final Staff Assessment for Contra Costa Power Plant). Migratory birds generally fly at an altitude that would avoid ground structures, except when crossing over topographic features (e.g., ridge tops) or when inclement weather forces them down closer to the ground. There are no topographic or ecological features that would attract birds to this location or "funnel" them into the vicinity of exhaust stacks or other elevated features of the project. Raptor species expected to occur in the general area, such as the red-tailed hawk and the Cooper's hawk, could potentially collide with the exhaust stacks during inclement weather (fog and rain). Smaller birds such as the least Bell's vireo and the yellow-breasted chat are smaller and more agile and are not likely to collide with these stacks. Because of the relatively low structure heights and lack of

guy wires, the potential for bird collisions with stacks and other project structures is considered less than significant.

Placement of lighting on the stacks to reduce attracting birds would minimize the potential for collisions and the impact is considered less than significant.

Large raptors, herons, and egrets can be electrocuted by transmission lines when a bird's wings simultaneously contact two conductors of different phases, or a conductor and a ground. The installation of transmission lines and poles will be constructed according to "raptor-friendly" guidelines (Avian Power Line Interaction Committee [APLIC], 1996). The 230-kV electrical transmission lines for the project will be constructed with at least a 5.5-foot span between conductor wires similar to the existing lines north of the site. Risk of electrocution is not expected to be significant because the area does not attract large numbers of birds. In addition, the "raptor-friendly" design (see Section 8.2.3.1) would reduce potential impacts to less than significant levels.

8.2.2.3 Impacts of Natural Gas and Water Pipeline Construction and Operation

Natural gas will be delivered to WCEP via a 30-foot-long tie-in to an existing onsite 30-inch-high pressure line. The primary method of pipeline construction includes excavation of an open trench approximately 4 feet deep and 3 to 7 feet wide, depending on site-specific soil type. The construction corridor will be approximately 50 feet wide. The pipeline corridor will require pavement and concrete cuts and does not intersect sensitive environmental resources. The temporary construction corridor will be used to store the excavated soil, provide access for equipment and vehicles, and space for welding the pipeline prior to installation and backfill.

The project will use recycled water for the majority of its water needs. A 20-foot-long pipeline tie-in to an existing line along Bixby Drive will be constructed within existing paved and concrete areas. The pipeline will be constructed primarily by open trench excavation (approximately 4 feet deep and 3 to 7 feet wide, depending on site-specific soil types). The construction corridor will be approximately 25 to 75 feet wide. The pipeline corridor will require pavement and concrete cuts and does not intersect sensitive environmental resources. The temporary construction corridor will be used to store the excavated soil, provide access for equipment and vehicles, and space for handling the pipeline prior to installation and backfill.

Potable water will be supplied by the City of Industry via a tie-in at Bixby Drive. There are no significant habitats present that would be adversely affected by temporary construction of the gas or water lines. Therefore, construction is not likely to result in any impacts to biological resources.

8.2.2.3.1 Special-status Species

Construction of the gas and water pipelines will be confined to road cuts in an industrial area. The work area is adjacent to industrial and commercial development, which is not characterized by natural habitat and does not provide significant biological resources for special-status plant and wildlife species.

8.2.2.3.2 Wetlands and Waters

The gas and water pipelines will not cross any jurisdictional wetlands or navigable water features.

The pipelines will require pressure testing after construction to ensure welds are tight and to remove any accumulated dust or welding residue from the pipeline. To do this, the pipe is filled with water and pressurized, resulting in a potentially large volume of water. If disposed improperly this water could cause adverse effects on the water quality of receiving waters. The pipe-testing water will be disposed of in the combined sewer system. Disposal to the sewer would ensure that impacts relating to wastewater disposal are less than significant.

8.2.2.4 Conflict with Regional Habitat Conservation Plans

There are no countywide or regional Habitat Conservation Plans that would affect development in this industrial area of the City of Industry.

8.2.3 Cumulative Impacts

The proposed project is located within a previously developed area surrounded by similar industrial development. The associated linear facilities will be short in length and will be located within previously developed areas, all within approximately 600 feet of the WCEP site. Air emissions have been projected to be insignificant and are not expected to impact local or regional natural habitats or increase cumulative impacts in the area. The project is not expected to result in significant impacts and there are no other proposed projects in the study area that would have similar impacts on biological resources. The WCEP project is not expected to result in significant impacts to biological resources and, therefore, the project is also not expected to contribute to any adverse cumulative impacts.

8.2.4 Proposed Mitigation and Monitoring

The construction and operation of the WCEP project is not expected to result in significant biological impacts; therefore, no biological monitoring is proposed and mitigation measures are limited to the following design guidelines intended to minimize avian impacts.

8.2.4.1 Foraging and Migratory Birds

The project site location (away from natural habitats) and transmission line design will minimize potential impacts to resident and migratory birds from electrocution or collision. The proposed mitigation measures to minimize any impacts include:

1. Design "raptor-friendly" 230-kV electric transmission lines, as described in *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996* (APLIC 1996) with conductor wire spacing greater than the wingspans of large birds (43 inches on the vertical and 60 inches on the diagonal) to help prevent electrocutions.
2. Provide safety lighting that points downward on the turbine exhaust stacks to reduce avian collisions, if such lighting is required.

8.2.5 Applicable Laws, Ordinances, Regulations, and Standards

The following sections describe the primary LORS that apply to potential impacts on biological resources in the project area, and list the agencies responsible for enforcing the regulations. A summary of the LORS is provided in Table 8.2-5, at the end of this section.

8.2.5.1 Federal

Federal Endangered Species Act (16 United States Code [USC] 153 et seq.). Applicants for projects that could result in adverse impacts on any federally listed species are required to consult with and mitigate potential impacts in consultation with USFWS. Adverse impacts are defined as "take," which is prohibited except through authorization of a Section 7 or Section 10 consultation and Incidental Take Authorization. "Take" under federal definition includes "such act as may include significant habitat modification or degradation" (50 Code of Federal Regulations [CFR] §17.3). Species that are not listed are not protected by federal ESA, even if they are candidates for listing; however, USFWS advises that a candidate species (as well as species of concern) could be elevated to listed status at any time, and therefore, applicants should regard these species with special consideration.

Migratory Bird Treaty Act (16 USC 703 to 711) protects all migratory birds, including nests and eggs.

Bald and Golden Eagle Protection Act (16 USC 668) specifically protects bald and golden eagles from harm or trade in parts of these species.

8.2.5.2 State

California Endangered Species Act (Fish and Game Code Section 2050 et seq.). Species listed under this act cannot be "taken" or harmed, except under specific permit. At present, "take" means to do or attempt to do the following: hunt, pursue, catch, capture, or kill.

Fish and Game Code Section 3511 describes bird species, primarily raptors, that are "fully protected." Fully protected birds may not be taken or possessed, except under specific permit requirements.

Fish and Game Code Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.

Fish and Game Code Section 3503.5 protects all birds of prey and their eggs and nests.

Fish and Game Code Section 3513 makes it unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird.

Fish and Game Code Sections 4700, 5050, and 5515 lists mammal, amphibian, and reptile species that are fully protected in California.

Fish and Game Code Sections 1900 et seq., the Native Plant Protection Act lists threatened, endangered, and rare plants listed by the state.

Title 14, California Code of Regulations, Sections 670.2 and 670.5 lists animals designated as threatened or endangered in California. CSC is a category conferred by CDFG on those species that are indicators of regional habitat changes or are considered potential future

protected species. CSC do not have any special legal status, but are intended by CDFG for use as a management tool to take these species into special consideration when decisions are made concerning the future of any land parcel.

California Fish and Game Code (Sections 1601 through 1607) prohibits alteration of any stream, including intermittent and seasonal channels and many artificial channels, without a permit from CDFG. CDFG jurisdiction is limited to areas within the 100-year floodplain. Within this zone, CDFG jurisdiction is subject to the judgment of the department. This applies to any channel modifications that would be required to meet drainage, transportation, or flood control objectives of a project.

California Environmental Quality Act (CEQA) (Public Resources Code Section 15380) defines "rare" in a broader sense than the definitions of threatened, endangered, or species of special concern. Under this definition, CDFG can request additional consideration of species not otherwise protected. CEQA requires that the effects of a project on environmental resources must be analyzed and assessed using criteria determined by the lead agency.

Warren Alquist Act (Public Resources Code Section 25000, et seq.) is a CEQA-equivalent process implemented by the CEC. Preparation of this application will result in an assessment prepared by the CEC staff to fulfill the requirements of CEQA.

8.2.5.3 Local and Other Jurisdictions

8.2.5.3.1 Applicable Habitat Conservation Plans and Critical Habitat Designations

The proposed site for the WCEP is not located in an area with an existing habitat conservation plan. The City of Industry is highly developed and does not contain native habitat within the WCEP project survey and impact area.

Critical habitat has been designated under the federal ESA in Los Angeles County for ten listed species: thread-leaved brodiaea (*Brodiaea filifolia*), Riverside fairy shrimp (*Streptocephalus wootoni*); Santa Ana sucker (*Catostomus santaanae*); southwestern arroyo toad (*Bufo microscaphus californicus*); desert tortoise (*Gopherus agassizzi*); Western snowy plover (*Charadrius alexandrinus nivosus*); Southwest willow flycatcher (*Empidonax trallii extimus*); least Bell's vireo (*Vireo bellii pusillus*); California coastal gnatcatcher (*Polioptila californica*); and the California condor (*Gymnogyps californianus)*. The critical habitat elements essential for these species include slow-moving streams and natural river systems, intertidal beach/dunes, riparian woodland, desert scrub, and valley foothill grasslands. None of these habitats are within approximately 7 miles of the project site. The closest Critical Habitat Unit (CHU) is approximately 7 miles away from the proposed project site along the San Gabriel River for the Santa Ana sucker (USFWS, Carlsbad Field Office).

8.2.5.3.2 City of Industry General Plan

The project is located entirely within the City of Industry's jurisdiction. The Conservation Element of the City of Industry General Plan (City of Industry, 1971) contains objectives to conserve, develop, and utilize natural resources within the City limits (Table 8.2-5).

8.2.5.3.3 City of La Puente General Plan

The 1-mile radius of the project site encompasses the jurisdiction of the City of La Puente. The City of La Puente general plan focuses on commercial and residential growth and does

not have specific objectives for the conservation or protection of natural resources (City of La Puente, 2004).

8.2.5.3.4 Los Angeles County (includes Hacienda Heights) General Plan

The General Plan area for Los Angeles County (for Hacienda Heights) is included within the 1-mile radius of the project site (Los Angeles County, 1978). As with the City of La Puente, Hacienda Heights does not have specific objectives for the conservation or protection of natural resources.

8.2.6 Involved Agencies and Agency Contacts

Because the project requires no discretionary federal approvals, and it will not impact any state or federal listed species or state species of concern and will not cross any jurisdictional streams or wetlands, no agency contacts are provided.

8.2.7 Required Permits and Permit Schedule

Because no streams will be crossed, and no special-status species would be adversely affected, no federal, state, or local permits are required for Biological Resources.

8.2.8 References

California Department of Fish and Game (CDFG). 2005. *California Natural Diversity Data Base*. Search of the Azusa, Baldwin Park, El Monte, Glendora, La Habra, Mount Wilson, San Dimas, Whittier, and Yorba Linda 7.5-minute USGS quadrangles., 2005.

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TABLE 8.2-5
Applicable Laws, Ordinances, Regulations, and Standards

Element	Goal/Policy	Conformance
Federal		
Federal Endangered Species Act (Federal ESA, 16 USC 153)	Applicants for projects that could result in adverse impacts on any federally listed species are required to consult with and mitigate potential impacts in consultation with USFWS.	The WCEP site does not include habitat for federally listed species. Construction and operation will avoid significant impacts to federally listed species and their habitat.
Migratory Bird Treaty Act (16 USC 703 to 711)	Protects all migratory birds, including nests and eggs.	The WCEP site does not include habitat or other features that would likely attract migratory birds. Stacks will be low in profile (90 ft) and are not likely to result in significant bird strikes. New transmission line will follow existing transmission line corridor.
Bald and Golden Eagle Protection Act (16 USC 668)	Specifically protects bald and golden eagles from harm or trade in parts of these species.	The WCEP site does not include habitat or other features that would likely attract eagles. Stacks will be low in profile (90 ft) and are not likely to result in significant bird strikes. New transmission line will follow existing transmission line corridor.
State		
California Endangered Species Act (Fish and Game Code Section 2050 et seq.).	Species listed under this act cannot be “taken” or harmed, except under specific permit.	The WCEP site and vicinity was analyzed and it was determined that WCEP construction or operation will not affect listed species and, therefore, not result in “take.”
Fish and Game Code Section 3511	Describes bird species, primarily raptors, that are “fully protected.” Fully protected birds may not be taken or possessed, except under specific permit requirements.	WCEP construction or operation will not result in “take.” Stacks will be low in profile (90 ft) and are not likely to result in significant bird strikes. New transmission line will follow existing transmission line corridor.
Fish and Game Code Section 3503	States that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.	The WCEP site was analyzed and does not include features that would encourage or accommodate nest building. Any encountered nests would be avoided during the species’ breeding season.

TABLE 8.2-5
Applicable Laws, Ordinances, Regulations, and Standards

Element	Goal/Policy	Conformance
Fish and Game Code Section 3503.5	Protects all birds of prey and their eggs and nests.	The WCEP site was analyzed and does not include habitat or other features that would likely attract birds of prey. Stacks will be low in profile (90 ft) and are not likely to result in significant bird strikes. New transmission line will follow existing transmission line corridor. The WCEP site was analyzed and does not include features that would encourage or accommodate nest building.
Fish and Game Code Section 3513	Makes it unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird.	WCEP construction or operation will not result in "take" of birds of prey, their nests, or eggs. Site features have been designed to avoid avian strikes. The WCEP site does not include features that would encourage or accommodate nest building.
Fish and Game Code Sections 4700, 5050, and 5515	Lists mammal, amphibian, and reptile species that are fully protected in California.	The WCEP site was analyzed and does not include likely habitat for fully protected mammal, amphibian, or reptile species.
Fish and Game Code Sections 1900 et seq.,	The Native Plant Protection Act lists threatened, endangered, and rare plants listed by the state.	The WCEP site was analyzed and does not include likely habitat for protected plant species.
Title 14, California Code of Regulations, Sections 670.2 and 670.5	Lists animals designated as threatened or endangered in California.	The WCEP site was analyzed and does not include likely habitat for state-listed species.
California Fish and Game Code (Sections 1601 through 1607)	Prohibits alteration of any stream, including intermittent and seasonal channels and many artificial channels, without a permit from CDFG.	The WCEP site construction was analyzed and will not include alteration of any stream or channel.
CEQA (Public Resources Code Section 15380)	CEQA requires that the effects of a project on environmental resources must be analyzed and assessed using criteria determined by the lead agency.	The AFC analysis and process is CEQA equivalent. All requirements under CEQA are met with the analysis in the WCEP AFC.
Warren Alquist Act (Public Resources Code Section 25000, et seq.)	Warren-Alquist Act is a CEQA-equivalent process implemented by the CEC.	The AFC analysis and process is CEQA-equivalent. All requirements under the Warren-Alquist Act are met with the analysis in the WCEP AFC.

TABLE 8.2-5
Applicable Laws, Ordinances, Regulations, and Standards

Element	Goal/Policy	Conformance
Local and Other Jurisdictions		
City of Industry General Plan		
Conservation Element	Perpetuate, in some instances, and instigate in others, programs to beautify the City of Industry throughout, and to conserve its natural resources.	The WCEP site construction was analyzed and will not affect the City of Industry's ability to develop and implement programs to beautify the City and to conserve its natural resources.

Source: City of Industry, 1971.